

Remarks

I. Status of Claims

Claims 1, 3-4, 8-14 and 17-21 are pending in the application. Claim 1 is the only independent claim. Claims 1, 3, and 8 are currently amended.

Claims 1, 3, and 8 stand rejected under 35 USC 112, second paragraph, as allegedly being indefinite for failing to particularly point out and claim the subject matter.

Claims 1, 3, 4, 8-14 and 17-21 stand rejected under 35 USC 103(a) as being allegedly unpatentable over Schmid (USP 6,080,503) (hereinafter “Schmid”).

The Applicant respectfully requests reconsideration of these rejections in view of the foregoing amendments and the following remarks.

II. Claim Objections

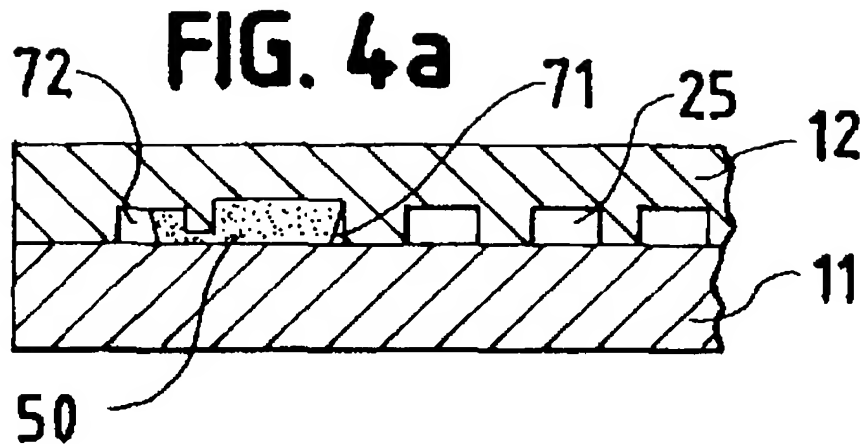
Claims 1, 3, and 8 are amended to correct any perceived ambiguity.

III. Pending Claims

Claim 1, the only independent claim, stands rejected under 35 USC 103(a) as being allegedly unpatentable over Schmid.

The Applicant respectfully submits that claim 1 is patentable over Schmid at least because it recites, “a sealant interposed between the plurality of components which is made of a material which maintains an initial material state even under an environment where the fuel cell unit is used, the material being selected from a gel material, high viscosity material and pressure-sensitive adhesive material....”

The Office Action appears to allege, that in FIG. 4a of Schmid (provided herein below), that the protruding portion is provided between the grooves 71 and 72, and thus, corresponds to the retaining portion of certain embodiments of the present invention. The Applicant respectfully disagrees.



In contrast to certain embodiments of the present application, the protruding portion of Schmid is arranged in such a manner that, particularly in cases where the adhesive material solidifies after a sealant in a liquid state is stacked, one groove, for example, groove 72 may receive sealant that has spread out of another groove, for example, groove 71.

With respect to certain embodiments of the present invention, these embodiments use sealant in a gel state (neither the liquid state nor the hardened state), which has a high viscosity and is a pressure sensitive. Since the sealant does not harden, the load of the clamping transfers to the sealant. Thus, the sealant deforms and the MEA can be over-compressed.

Certain embodiments of the present application differ from Schmid and the cited references in that a sealant in a liquid state is not squashed. When sealant in the liquid state is squashed, it is allowed to spread out of the grooves. This is disadvantageous. See discussion in paragraphs [0009-0016] of the Applicant's published application. The sealant in a gel state arrangement used in certain embodiments of the present application also allows for the elimination of the space corresponding to groove 72 in Schmid.

Using certain embodiments of the present invention, rebuild-properties may improve due to using the sealant in a gel state while the seal quality may also be improved due to providing the spacing portion and the retaining portion.

In addition, the Applicant respectfully submits that motivation for using a sealant in a gel state is neither provided in Schmid nor the cited references.

Further, the Office Action recognizes that Schmid does not disclose a separately formed spacing portion. See page 4 of the Office Action. In attempt to address this deficiency, the Office Action appears to rely on Official Notice to support the rejection. More specifically, the Office Action alleges that it would have been obvious to modify Schmid "since it is has been held that constructing a formerly integral structure in various elements involves only routing skill in the art." The Applicant respectfully traverses the Official Notice taken and requests evidence to substantiate the alleged motivations or reasons to modify Schmid. Specifically, Applicant respectfully requests evidence to substantiate the theory that it would have been obvious to one having ordinary skill in the art to have modified Schmid to include a separately formed spacing portion. Such support is required under MPEP 2144.02 and 2144.03.

Therefore, the Applicant respectfully submits that, for at least these reasons, claim 1 and its dependent claims are patentable over Schmid and the cited references.

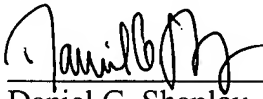
IV. Conclusion

In light of the above discussion, the Applicant respectfully submits that the present application is in all aspects in allowable condition, and earnestly solicits favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned at (202) 220-4420 to discuss any matter concerning this application. The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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